

# preface

## INTRODUCTION

Health Information Technology continues to expand rapidly across the entire spectrum of the medical community. Affordability in computer technology and medical software is now exerting a major influence on physicians in private practice groups of eight or fewer doctors to adopt electronic medical records. This enclave of medical professionals makes up nearly 78 percent of all medical practices in the United States. The availability and reliability of wireless computer networks, the public concern for patient safety, and the affordability of health information technology are being met with the federal government's involvement in coordinating and setting technical standards and implementing time tables for electronic medical records. These converging forces are bringing about a virtual explosion in the electronic health-care business, leading industry experts to concur that in less than a decade 90 percent of small- to medium-sized practices will be utilizing an electronic health records system. Currently, it is estimated that only 4 percent of independent physicians utilize an electronic medical record system.

The remarkable surge of interest in electronic health records (EHR) is leading to further development in comprehensive clinical decision support that will continue to enhance computerized knowledge management systems and create even more robust EHRs. Through the EHR, medical consumers have become the beneficiary of improved medical care, greater patient safety, and increased control over medical records and are able to make important contributions to their health care.

With the forming of government agencies that now give guidance to the electronic health-care industry and set standards for feature development among health information vendors, the EHR elements are becoming uniform with clinical guidelines, protocols and care plans embedded into the programs. Templates, standard reports, medical database analysis, and clinical alerts have now become automated through most EHR programs. The electronic health record has matured and is poised to become the foundation for a national health information infrastructure.

## KEY FEATURES

- **The CCHIT-certified SpringCharts™ premium EHR program is available with each text at no additional cost to the student or school.** Students learn EHR documentation through this industry-standard software. It combines the right mix of rich functionality and intuitive ease of use to enable rapid and complete clinical and clerical documentation.
- An abundance of screen captures and menu icons from SpringCharts™ EHR software provide step-by-step instructions for easy reference and application.
- Concept Checkups follow each topic and break down learning outcomes into manageable subject material.

- Focal Points and key term definitions appear in the margins throughout the text to spotlight critical data necessary to master end-of-chapter review quizzes.
- A **Certificate of Training** is available on McGraw-Hill's Online Learning Center (OLC) for each student completing the course.

## TEXTBOOK OVERVIEW

This textbook, *Electronic Health Records*, arose from the need to train medical support personnel for the anticipated phenomenal growth of electronic health records in the health-care field. Understanding of and practical knowledge of electronic health records is essential to all medical professionals and support staff entering the workforce. Successful preparation in education is the seedbed for a successful career.

In *Electronic Health Records* we provide a detailed history of the EHR from the inception of the electronic medical record in the 1960s, tracing the influence of several federal agencies and private-sector organizations from the Health Insurance Portability and Accountability Act of 1996 to the Certification Commission of Health Information Technology formed in 2004 to the Medicare Improvements for Patient and Providers Act of 2008. *Electronic Health Records* devotes an entire 10 chapters to practical, hands-on experience with *SpringCharts EHR™*, a popular electronic health records program used by a wide range of medical specialties and health-care professionals both nationally and internationally. At the completion of this course you will receive a Completion Certificate acknowledging your successful training as a *SpringCharts* user.

In **Chapter 1** the student is introduced to a concise history of the EHR, and we unravel the multiple nomenclatures surrounding the development of the EHR. We also explore the perceived obstacles that have prevented medical professionals from speedily embracing the electronic patient chart and then discuss the benefits that many are now seeing in the adoption of electronic medical records.

**Chapter 2** covers the history of the standards surrounding the EHR and looks at the influence that legislation and agencies like the Health Insurance Portability and Accountability Act, Consolidated Health Informatics, Institute of Medicine, and Certification Commission for Healthcare Information Technology have had on feature development in the EHR industry.

**Chapter 3** covers an introduction to *SpringCharts EHR* and the system preferences that enables the program to function uniquely for each user. The student is taught the basic data setup of new patients, insurance companies, and clinical addresses.

In **Chapter 4** the student will learn how to function in an administrative role within the clinic by utilizing several managerial features of *SpringCharts*, including patient scheduling, tracking patient activity, and sending and receiving reminders, messages, and e-mails.

The electronic patient chart is discussed in detail in **Chapter 5**. Here the student will learn how to build the patient's electronic face sheet; order tests; document phone calls, excuse notes, and order forms; create letters; chart a patient's vitals, and import documents and images into the patient's chart.

**Chapter 6** introduces the medical student to the comprehensive office visit note. The trainee will build a realistic medical note from a patient

encounter, learn how to work with other clinical staff in documenting portions of an office visit, add a new diagnosis and drug to the system database, create various reports from the patient encounter, work with several online medical databases, add an addendum note, and create a routing slip for billing purposes.

Clinical tools are addressed in **Chapter 7**. The student will learn how to evaluate electronic charts for wellness screenings, build a superbill unique to the needs of a medical clinic, create and administer a patient instruction sheet, conduct a drug/allergy reaction check, and explore the clinical draw program.

**Chapter 8** introduces the student to the flexibility of the electronic template and pop-up text. These two robust features enable medical staff to speedily document both clinical and clerical processes with a click of the mouse. The trainee will learn how to build templates and pop-up text and then utilize this information throughout the program.

Practical learning continues in **Chapter 9** with the creation, ordering, and processing of medical tests. The student will learn how to create, edit and use procedure and diagnosis codes.

**Chapter 10** takes the medical student through the common clinical functions located in the *Productivity Center*. Here the trainee will work with the electronic bulletin board, send and receive electronic faxes, use the built-in time clock feature, access customized websites, archive unused electronic patient records, and analyze the medical database to create form letters and reports.

**Chapters 11** provides the student with advanced exercises that will apply the knowledge gained from studying specific elements of the program and incorporate this information into practical multitasks.

**Chapter 12** supplies the trainee with real medical source documents from which patient and medical data can be created in the electronic health record.

The purpose of *Electronic Health Records* is to provide a practical bridge to span the gap between how medical records have been kept for the past several centuries and how they are kept today. By making available a hands-on textbook, doctors, physician assistants, nurses, medical assistants, and clinical and medical clerical staff will make a comfortable journey across that bridge arriving with practical expertise with EHRs.

## WHAT'S NEW IN THE SECOND EDITION OF EHR?

### ARRA

The American Recovery and Reinvestment Act of 2009, commonly known as the Stimulus Package, contains approximately \$20 billion to promote the adoption of EHRs across the country. Up to \$65,000 is being made available to physicians to invest in Health Information Technology, ensuring that every citizen has access to electronic medical records by 2014. This program and its impact upon the future allied health workforce is discussed in the second edition.

### MIPPA

The Medicare Improvements for Patients and Providers Act of 2008 and its impact on e-prescribing in EHR programs is discussed. The current increased reimbursement incentives to physicians from CMS is outlined.

## E-prescribing

By 2015 e-prescribing will be mandated; patients will no longer receive a written prescription for medication. A national clearing house is already in place to receive electronic prescriptions from multiple physicians into a single database for each patient. Details of e-prescribing are discussed in this edition.

## New Four-Color Design

The second edition of *Electronic Health Records* has a new four-color design, making screen shots easier to read and the textbook more visually engaging to the student.

## New Features to SpringCharts

SpringCharts EHR has gone through five upgrades since the first edition of *Electronic Health Records*. Students will now be working on version 9.7. Some of the additional features of this new version are outlined in the second edition of *EHR*.

- Digital signature—allows user to save a signature into the program that will print on letters, prescriptions, and anywhere an electronic signature is available. Only the user may use his digital signature; it is not available to other users. A Tablet PC must be in place to use this feature.
- Added capability to convert one type of note to an OV note—useful when a patient enters the office to have a blood pressure check but then needs to see the doctor.
- Vitals—right click on vitals fields to enter values without typing.
- Added an addendum feature for charted messages—messages that have been charted may now have an addendum, similar to the OV addendum.
- All text areas now have right-click support for adding date, time, and initials.
- Added right/left-hand orientation for new OV screen—moves the tabs to the left side for left-handed users and to the right side for right-handed users.
- Added font and margin choices to printing—a new print dialog was created to allow the user to define margins, font, and font size when printing documents.
- Overhauled face sheet—the multicolored boxes on the left half of the patient chart have been replaced with a more aesthetically pleasing face sheet. This design change also allows for easy future expansion of the face sheet.
- New office visit form—the office visit form has been redesigned to allow large screen users an always-visible face sheet and the tabs have been moved to the sides.
- Added automatic chart evaluations and pending/completed test lists to the face sheet—chart evaluations are now automatically processed on opening a chart and are shown on the new face sheet. Pending and completed tests are now shown on the face sheet instead of in the former pop-up window.
- Added right-click support to face sheet—right-click each face sheet item to view or edit that item.
- Added face sheet to all types of chart notes—the new face sheet was added to Nurse notes, Encounter notes, Rx Refill notes, TC notes, and Vitals Only notes.

- Overhauled Nurse note, TC note, Rx Only note, Encounter note, and Vitals note—these screens have been redesigned to follow the pattern of the new office visit form.
- Overhauled immunization window—can now be sorted by date or name.
- Added a lock icon to signed chart notes—a new icon identifies which items in a chart have been signed.
- Added drug search by generic name—prescription drug choices may now be searched by brand name or generic.
- Changed ‘Referred by’ to ‘Other Providers’—more useful to specialist practices.
- Added tests to the OV templates—users may now enter tests to be included in each template.
- Added pop-up text to the notes sections of all tests (lab, imaging, med).
- Added NPI to routing slip.